Reviewer’s report

Title: Anemia and perioperative mortality in Non-cardiac Surgery patients: a secondary analysis based on a single-center retrospective study

Version: 0 Date: 16 Feb 2020

Reviewer: Mehmet Aksoy

Reviewer's report:

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In this study, authors investigated the relationship between anemia and perioperative mortality in surgical patients at different ages. They analysed the electronic medical records of 90,785 patients who underwent general surgery at the Singapore General Hospital from January 1, 2012 to October 31, 2016 retrospectively. They reported that anemia is an independent risk factor for perioperative 30day mortality, especially among emergency surgery, high-risk surgery and surgery with intraoperative blood transfusion.

This study was planned incorrectly methodologically. Patient groups are not homogeneous. The average age of the groups, the type of surgical intervention they have undergone, the ratio of male and female, race, anesthesia type, emergency or elective surgery status, surgical risk status, ASA status etc. are different from each other. You cannot statistically compare patient groups with such heterogeneous features.

As a result, the design of the study was not done correctly and there are deficiencies that cannot be corrected. This study must be urgently rejected.

Sincerely yours…

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
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No
Are the conclusions drawn adequately supported by the data shown?
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No

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I am able to assess the statistics

Quality of written English
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Not suitable for publication unless extensively edited

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